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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/523,880

03/01/2005

Takumi Ujio

05089/HG

4402

1933 7590 08/31/2007
FRISHAUF, HOLTZ, GOODMAN & CHICK, PC
220 Fifth Avenue
16TH Floor
NEW YORK, NY 10001-7708

EXAMINER

YANG, JIE

ART UNIT

PAPER NUMBER

1742

MAIL DATE

DELIVERY MODE

08/31/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/523,880	UJIRO ET AL.	
	Examiner	Art Unit	
	Jie Yang	1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 18-21 is/are pending in the application.
- 4a) Of the above claim(s) 5-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 18-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>02/07/2005; 04/11/2005</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election of "Group I—Claims 1-4 and 18-21, drawn to a structural Cr-containing steel" in the reply filed on 8/14/2007 is acknowledged without traverse (MPEP 818.03(a)).

Claims 5-17 are withdrawn from consideration as being directed to a non-elected groups (Group II: claim(s) 5-9, a manufacturing method for a structural Cr-containing steel; and Group III, claim(s) 10-17, drawn to an using for a structural Cr-containing steel), and Claims 1-4 and 18-21 are pending for examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-4 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable Katagiri et al (US 2001/0,000,580, thereafter '580) in view of Kohno et al (US 6,217,679 B1, thereafter '679).

'580 teaches a high-Cr ferritic stainless steel with high strength (Page 1, Paragraph 1 and 12). The composition comparing listed in following table. The composition disclosed by '580 overlaps the composition of the instant invention, which is a prima facie case of obviousness. SEE MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to select the claimed compositions of Cr, C, Si, Mn, P, S, N, Al, and optional select Cu, Ni, Mo, Nb, and V from the composition disclosed by '580 because '580 discloses the same utility throughout the disclosed ranges.

Element	From instant Claims (in wt%)	'580 (in wt%)	Overlapping range (in wt%)
C	0.002-0.02	0.003-0.1	0.003-0.02
Cr	6.0-10.0	1.8-8.0	6.0-8.0
Si	0.05-1.0	0-1.0	0.05-1.0
Mn	0.05-1.0	0.05-1.5	0.05-1.0
P	0-0.04	0-0.10	0-0.04
S	0-0.02	0-0.02	0-0.02
N	0.002-0.02	Trace amount	--
Al	0.001-0.1	0.003-0.10	0.003-0.1
Cu	0.1-1.0 (Cl.2)	0-2.0 (optional)	0.1-1.0
Ni	0.1-1.0 (Cl.3,18)	0-2.0 (optional)	0.1-1.0
Mo	0.1-1.0 (Cl.3,18)	0.01-2.0 (optional)	0.1-1.0
Nb	0.005-0.10 (Cl.4,19-21)	0.08-0.40 (optional)	0.08-0.10
V	0.005-0.20 (Cl.4,19-21)	0.08-0.40 (optional)	0.08-0.2
Fe	Balance	Balance	Balance

But '580 does not explicitly states: "where the Cr-concentration in the surface layer of the steel is equal to or more than the value wherein 1% by mass is subtracted from the Cr-concentration within the steel". '679 discloses a Cr containing steel (Cr content from 6% to 25% wt.) with no Cr-decreasing layer and no shot blasted marks on their surface and have good corrosive resistance (Abstract, Col.11, Line 31-48, and claim 1 of '679). '679 also teaches a similar acid-pickling descaling process as disclosed in the instant invention on the same hot-rolled Cr content steel (col.3, Line 20 to Col.4, Line 3; table 1 and 2; and claim 1 of '679). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the Cr-concentration in the surface layer of the steel be equal to or more than the value wherein 1% by mass is subtracted from the Cr-concentration within the steel by the method demonstrated in '679 in process of '580 to obtain steel strips having good surface lies, and can be polished well, having no Cr-decreasing layer on the surface, and having good corrosion resistance with low cost (Col.11, Line 31-47 of '679).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jie Yang whose telephone number is 571-2701884.

The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-2721244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JY

(JY)

ROY KING
SUPERVISORY PATENT
TECHNOLOGIES

MINER